



# Service in the Natural World: *Virginia's Master Naturalists*

story and photos by Marie Majarov

*"Never doubt that a small group of thoughtful, committed citizens can change the world."*

—Margaret Mead

**V**irginia Wildlife readers, it goes without saying, love the outdoors. You might be anglers, hunters, naturalists, birders, or hikers; as such, you truly appreciate the importance of clean streams, rich forests, and native habitats for the wondrous wildlife and rich bounty they engender. You also know that the vitally important task of preserving these precious natural resources for the future is fraught with a multitude of challenges. But did you know that Virginia has a corps of committed citizens, an army of individuals really, 3,000-plus strong, working across the state and dedicated to this task? Yes, Virginia Master Naturalists (VMNs)—an organization to which I proudly belong and one that might just interest you as well.

VMNs are passionate, committed volunteer educators, citizen scientists, and stewards motivated by a desire to learn about and connect with nature, meet others with similar interests, and give back to their communities. This exceptional program (only 26 nationwide) is sponsored jointly by Virginia Cooperative Extension, Virginia Museum of Natural History, and the state departments of Conservation and Recreation, Forestry, Environmental Quality (DEQ), and Game & Inland Fisheries (DGIF). VMN also partners with myriad other state, national, and local organizations with overlapping missions.

Composed of 29 volunteer-run local chapters, VMN is based in the Department of Forest Resources and Environmental



DGIF Habitat Education Coordinator Carol Heiser educates a group of VMN in conservation landscaping at the statewide conference.



A Shenandoah Chapter geology field trip to Stony Man Mountain at Shenandoah National Park is led by Park Ranger Sally Hurlbert.

Conservation within the College of Natural Resources and Environment at Virginia Tech. At its head is Coordinator Dr. Alycia Crall who, with her extensive background in environmental studies and citizen science, is doing an outstanding job of guiding, accessing needs, and planning comprehensive directions for this active, rapidly expanding organization (membership increasing at 23 percent a year). Dr. Crall reports that, "Since its 2006 beginning, Virginia Master Naturalists have contributed more than 396,300 hours of service to our Commonwealth valued at almost nine million dollars." That value is established by the Virginia Employment Commission.

## Service Projects

Service projects run the gamut in size, scope, and nature and are short term as well as ongoing. Some are done individually (weekly counting pollinators on spring beauties, a citizen science project) while others require chapter-wide efforts (removing invasives

along Skyline Drive, building a bridge at First Landing SP). Many require hands-on, down-and-dirty outdoor work; others, presentation/education skills; and still others make use of administrative, writing, and photography talents for the VMN program and its sponsors.

A sampling of typical projects: stilt grass control, community gardens, wood duck box installation, bluebird trails, butterfly counts; interpretive hikes; macro-invertebrate stream monitoring; work days at state wildlife management areas or parks fighting invasives and planting habitat; collecting seeds/acorns for Forestry programs; riparian buffer development; Audubon Christmas Bird Count; and watershed education in schools.

Citizen science is a major focus area: service projects in which VMNs make observations and collect significant field data on such fascinating and varied wildlife topics as stink bugs, monarch tagging, hawks, osprey, pollinators, American chestnut trees, and frog/toad calling, as part of ongoing research projects at Virginia Tech, Audubon, Center

## Virginia Master Naturalist



for Conservation Biology's Osprey Watch, the Cornell Lab of Ornithology, Monarch Watch, and DGIF.

Creative technology is being employed in more and more projects. One example: motion-triggered cameras that collect photographic data to assess mammal populations and diversity at the Smithsonian Conservation Biological Institute. Funded by a National Science Foundation grant, Dr. Crall and VMN Citizen Science Coordinator Dr. David Mellor, a behavioral ecologist, will be developing methodology and creating on-line space for collaboration on local and regional citizen science efforts.

"It's an exciting time for VMN," says Dr. Caren Cooper, Research Associate in Bird





Shenandoah Chapter trainees spot a scarlet tanager during a botany field trip at G.R. Thompson Wildlife Management Area (WMA).

Upon completion of the basic training, 8 additional hours in advanced training and 40 hours of volunteer service are required for certification. Advanced training can occur in a wide variety of venues. Sponsoring agencies and partnering organizations (such as the State Arboretum and VA Native Plant Society) offer numerous opportunities year-round. Annually, workshops are also given at the statewide VMN conference. Continued learning that fosters in-depth areas of specialization and the acquisition of skills/knowledge specific to local service projects is imperative for VMNs. To maintain active certification, additional advanced training and service hours are required annually. Being a VMN is an ongoing commitment to excellence.

### Working Together

The relationship of the six sponsoring agencies and the VMN program is enormously cooperative. Sponsor contributions go far beyond financial support, and benefits accrue exponentially for all involved. Dr. Crall reports that, on average, approximately 20 percent of



Shenandoah Chapter VMN with the help of partners Friends of the North Fork of the Shenandoah River, learn to carefully sort and count macro-invertebrates to assess the health of the river.

Population Studies at the Cornell Lab of Ornithology and keynote speaker at the 2013 statewide VMN Conference. “They are ambassadors playing an important role in the national citizen science movement with their participation and contributions empowering others to get involved and demonstrating that committed citizens can do community-based science.”

### Training & Certification

Becoming a certified VMN takes approximately 6 to 12 months. The first step is a 40-hour training course melding classroom work and field study that highlights the role, mission, and objectives of the VMN along with critical naturalist skills: using keys to identify organisms, competency with field guides, verbal and/or written communications, making/recording observations in nature, scientific method, a strong working knowledge of the Virginia state agencies involved in the management/conservation of our natural resources, and most importantly, the ability to seek answers to handle questions one doesn't know through reliable sources.

Core requirements include studies in basic ecology, biogeography, geology, vertebrates, invertebrates, botany, education and interpretation skills, research methodology, conservation, and natural resources management principles. Material presented is unbiased and research based; the instructors are experts in their fields, many coming from sponsoring agencies.

Offered yearly by each chapter, training classes are tailored to the local environment and community. For example, hailing from the Shenandoah Chapter in Virginia's northwestern reaches, my training was held at UVA's Blandy Experimental Farm with birds, herpetology, soil science, and trees studied in Blandy's gorgeous woodlands and meadows. I learned geological principles on a climb of Stony Man Mountain in Shenandoah National Park, fish and macro-invertebrate studies along the Shenandoah River, and botany amidst G.R. Thompson WMA's magnificent trillium and bluebells stretching along the Shenandoah River. Certainly hard work at times, but fascinating, and I loved every minute!



DGIF Fisheries Biologist Paul Bugas demonstrates electrofishing equipment at a VMN training field trip along the Shenandoah. Having helped to organize the Headwaters Chapter, Bugas is an honorary VMN and serves as chapter advisor.



VMN and veterinarian Dr. Belinda Burwell prepares to release a red-tailed hawk that was rehabbed at the Blue Ridge Wildlife Center. Helping at the center is an ongoing Shenandoah Chapter VMN service project.

the hours annually submitted by volunteers are in direct service to DGIF projects such as wildlife surveys, habitat restoration and enhancement, stewardship activities on wildlife management areas, and programs educating the public about wildlife. Additionally, a significant number of the service hours provided to other agencies—a prime example, stream monitoring services to the DEQ—benefit wildlife and fisheries, as well.

Representatives from each sponsoring agency form the organization's executive and steering committees, which advise Dr. Crall and oversee the operations, activities, and future directions of the program. Agency professional staff also serve as chapter advisors and training class instructors; many are themselves VMN volunteers. Take DGIF fisheries biologist Paul Bugas. An honorary VMN, Bugas organized the Headwaters Chapter, serves as its advisor, and is a fisheries instructor in chapters across the state.

The collaborative efforts of VMN and sponsoring agencies are well illustrated by the contributions of Carol Heiser, a manager who also coordinates habitat education for the





Soil pits at Blandy Experimental Farm provide Shenandoah Chapter trainees wonderful learning opportunities. Here, Master Naturalists learn to determine soil types with USDA's Don Flegel.



Birding skills are practiced by canoe at Pocahontas State Park during the 2013 statewide VMN conference.

DGIF. Through the Habitat Partners® program, Heiser trains agency volunteers, called habitat facilitators, to go out and educate others regarding DGIF's critically important conservation landscaping message which emphasizes the value of native plants to wildlife and biodiversity. Heiser, who has trained over 200 habitat facilitators and also serves on the VMN state steering committee, says, "Master naturalists put ecological principles into practice. We rely heavily on them to work at the local level and make habitat improvement projects a reality."

Jack Price of the Old Rag Chapter is one of the many DGIF habitat facilitators who has committed Heiser's training to heart and action. In the rural town of Washington, an old field filled with broken-down trees, invasives, garbage, bottles, and discarded tractor parts caught the eye of Price and fellow VMNs Don Hearl and Jenny Fitzhugh. They also saw "native cherries, locust, goldenrod, and a riparian area and stream with significant potential." Education of the town and its officials began in 2012; VMN volunteer legwork elicited strong community support and the land was procured and preserved. With intense work days, skilled knowledge, and new native plantings, the site is now well on its way to becoming a truly impressive nature trail with restored wetlands, meadows, a rich variety of native trees, pollinator habitat, and rain gardens. The town is looking to acquire additional land and the chapter is applying for a grant that will allow them to expand the project and create an education center. More people will be educated here about what they can do in their own yards; children will be inspired by being close to nature's beauty; the message will spread.

Yes, Virginia Master Naturalists—along with program sponsors and partners—work together in this calling to preserve our natural resources. I hope you will salute, appreciate, and support their efforts. Indeed, you might even want to consider joining them! 🌿

*Marie Majarov (www.majarov.com), a Virginia Master Naturalist, lives in Winchester with her husband, Milan, where they are active in nature pursuits and both the Virginia and Mason-Dixon outdoor writers associations.*

### RESOURCES

- ◆ Virginia Master Naturalist:  
[www.virginiamasternaturalist.org](http://www.virginiamasternaturalist.org)
- ◆ Habitat Partners®:  
[www.dgif.virginia.gov/habitat/](http://www.dgif.virginia.gov/habitat/)